AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
J	1 1

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0001	8 MAR 00	W81C8X-0007-9234	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
CONTRACTING DIVISION USARMY ENGR DIST ST LOUIS 1222 SPRUCE ST RM 4.207 ST LOUIS, MO 63103-2833	B3P0000	**See Item 6**	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. DACW43-00-B-0220
	X	9B. DATED (SEE ITEM 11) 29-Feb-2000
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [ ] is extended, [X] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the document; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN THE REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

AMENDMENT OF DIKE AND REVETMENT REPAIR MRM 195.0 to 98.6

Specifications and drawings are amended as follows:

SECTION 02276 - Delete the section in its entirety and replace with the attached like numbered section

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED

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SECTION 02276
CONSTRUCTION DETAILS

PART 1 - GENERAL

1.1 SCOPE. The work provided for herein consists of furnishing all plant, labor, material, and equipment and performing all operations in connection with the repair of bank protection, stone dike and appurtenant work in accordance with this section of the specifications and the applicable drawings.

1.2 QUALITY CONTROL.

1.2.1 General. The Contractor shall establish and maintain quality control for all operations to assure compliance with contract requirements and maintain records of quality control for all construction operations, including but not limited to the following:

(1) Location of work.

(2) Removal of debris prior to commencing repairs.

(3) Grade and section of dikes.

(4) Stone placement.

1.2.2 Reporting. A copy of these records and tests, as well as corrective action taken, shall be furnished to the Government daily.

1.3 RIVER STAGE AND WEATHER LIMITATIONS.

1.3.1 No work will be permitted at stages exceeding 28 feet on the St. Louis gage, unless specifically authorized by the Contracting Officer. When construction work is prevented during such times and because of such actions, the Contracting Officer will determine the extent of the delayto the work as a whole, and the time fixed for completion of the contract will be extended for the period of such delay.

1.3.2 Low River Stages. In the event low river stages require the Contractor to lighten the barges or to suspend operations entirely, the Contracting Officer will determine the extent of the delayto the work as a whole, and the time fixed for completion of the contract will be extended for the period of such delay.

1.3.3 Revetment Repair. Placement of Graded Stone A will be permitted at all river stages below flood stage, except that subaqueous placement of stone will be as directed by the Contracting Officer.

1.4 GENERAL REQUIREMENTS.

1.4.1 Types of Work. The work under this contract consists of minor repairs to revetments and dikes as listed in paragraph 02276-1.4.2.1. The work required will include the following types of work:

(1) Placing Graded Stone A in damaged areas of existing revetment.

(2) Placing Graded Stone A to the top of high bank in damaged areas above existing revetment.

(3) Constructing toe dikes with Graded Stone A across roundouts in revetted bank or below dikes.

(4) Bank protection at dike heads with Graded Stone A.

(5) Constructing stone foundations with Graded Stone A.

(6) Placing Graded Stone A to stabilize caving banks behind roundouts.

(7) Excavating for key for stone fill dikes.

(8) Filling gaps in, and/or building up, existing stone fill dikes and previously converted timber pile dikes with Graded Stone A.

(9) Minor bank clearing.

(10) Minor bank grading.

(11) Blanketing specified areas with Graded Stone A.

No lumber mattress, piles or stringers will be required under this contract. Minor bank grading, where required, will be performed by mechanical methods.

1.4.2 Order of Work. The areas to be repaired are listed in paragraph 02276-1.4.2.1 and the extent of the repairs shall be as shown and as directed by the Contracting Officer's representative in the field. In order that the Contractor may take advantage of higher river stages which occur during the construction season, the Contractor may be permitted to proceed with placing of stone only on the upper part of the revetment and/or dikebankhead. Before placing stone all bank grading shall be completed. Stockpiling of stone on the revetment will not be permitted. When river stages are such that work can be performed on the lower portion of the revetments or dikes, the Contractor shall return, at its own expense, to the first location at which work is thereafter directed, and complete all work required on the revetments or dikes. All expenses in moving to the new locality and returning to the original location when repairs can again be performed shall be borne by the Contractor.

1.4.2.1 List of Repairs.

1.4.2.1.1 The Contractor shall complete the work listed in paragraph 02276-1.4.2.1.3 as shown along with other items of work as may be determined in the field as work progresses.

1.4.2.1.2 Types of Work to be Performed. All nine types may or may not be encountered in this project.

Type	Description	Material
I	Repair revetment and/or bankline as needed between toe of slope and top of high bank.	Graded Stone A
II	Construct toe dike across roundout below	Graded Stone A

dikehead.

III	Raise stone blanket on existing revetted areas from existing stone to top of high bank.	Graded Stone A
IV	Construct stone foundation along toe of revetment and raise to natural high bank.	Graded Stone A
V	Restore existing stone dike to specified elevation.	Graded Stone A
VI	Repair breach in stone dike to original elevation of dike.	Graded Stone A
VII	Add trail to existing dike.	Graded Stone A
VIII	Repair dike head.	Graded Stone A
IX	Repair erosion at dike head with stone blanket.	Graded Stone A
X	Stone removal from navigation channel	Graded Stone A

1.4.2.1.3 List of Repair Locations, Mississippi River Mile 195.0 to 98.6.

Note: The following five work sites are priority sites. Preferably the work at these locations will be performed first, but if river conditions are not right to do so, work may proceed at any of the other sites listed as long as sufficient stone is retained to complete the work at these three sites when river conditions permit.

Priority site number 1 - 132.9 (R)

Priority site number 2 - Chain of Rocks Canal

Priority site number 3 - 164.7(L)

Priority site number 4 - 174.1(R)

Priority site number 5 - 161.1(L)

LOCATION BY MILE	TYPE OF REPAIR	COMMENTS
Chain of Rocks Canal	I	Place stone on three areas of erosion. Contact John Cannon at the Rivers Project Office (314-899-2600) prior to doing work.
190.8(R)	I	Place stone on approximately 300 feet of caving bank.

187.0(R)	I	Place stone on approximately 200 feet of caving bank.
185.6(R)	I	Revet approximately 300 feet of caving bank.
184.0(R)	I	Place stone on approximately 100 feet of caving bank.
182.9(L)	I	Place stone on approximately 300 feet of caving bank.
182.0(L)	I	Place stone on approximately 300 feet of caving bank.
178.4(L)	I	Place stone on approximately 400 feet of caving bank.
176.9(L)	I	Place rock on 200 feet of caving bank.
176.6(L)	I	Place rock on 600 feet of caving bank.
174.1(R)	I	Work at this site shall be coordinated with a representative from ED-HP. Place rock on a total of 600 feet of caving bank. The work is to include three 100-foot sections and one 300-foot section.
173.3(L)	I	Place rock on 300 feet of caving bank.
171.9(L)	I	Place rock on 400 feet of caving bank.
170.9(L)	I & VIII	Restore 100 feet of flanked dike head, place revetment 100 feet upstream and 200 feet downstream of dike.
170.4(L)	I	Place rock on 200-foot roundout.
168.5(L)	V	Restore cross section of middle 300 feet of dike.
167.5(L)	I & II	Place revetment on head of island. Tie stone into dike 167.5(L) and wrap the rock around the island 150 feet into slough. Construct 400 foot toe dike across roundout below dike 167.5 (L).

166.6(L)	V & I	Restore dike to an effective length of 800 feet. Slope from high bank for 300 feet down to Elevation 386 NGVD; then flat for 500 feet out to end of dike. Place stone such that the existing piling remains exposed on the downstream side of the stone. Place stone from the dike head to 500 feet downstream.
166.4(R)	I	Place revetment on approximately 100 feet of caving bank.
166.2(L)	V	Restore cross section of 100 feet of dike.
165.7(R)	I	Place rock on 200-foot roundout.
165.5(R)	I	Place rock on 200-foot roundout.
164.7(L)	I	Place rock on approximately 900 feet of bankline, from toe of slope to high bank and from existing revetment downstream to dike 164.7 (L).
163.7(L)	VI	Tie toe dike together, approximately 200 feet.
163.0(L), 162.6(L), and 162.3(L)	I	Place stone on roundouts downstream of dikes. Total length is approximately 1000 feet.
161.9(L)	V	Restore 300 foot dike. Start at high bank and slope to elevation 386 NGVD. Place stone such that the existing piling remains exposed on the downstream side of the stone.
161.5(L)	I	Place rock on 200-foot roundout.
161.1(L)	II & VIII	Restore 200 foot dike head. Construct 400 foot toe dike across roundout.
160.9(L)	I & VIII	Restore 200 foot dike head. Place stone from the dike head to 400 feet downstream.
157.2(R)	I	Place stone on approximately 200 feet of caving bank.
156.0(L), 155.6(L), and 155.3(L)	I	Place stone on roundouts downstream of dikes. Total length is approximately 600 feet.

154.6(L)	I	Place rock on 200-foot roundout.
154.4(L)	I	Extend existing revetment approximately 300 foot downstream.
154.1(L)	II	Extend toe dike 200 feet downstream.
152.5(L)	I	Place rock on 300-foot roundout.
150.0(L)	I & VIII	Restore 100 feet of dike head, place revetment 200 feet downstream of dike.
149.0(L)	I	Place rock on 2000 feet of caving bank.
146.3(L)	V	Restore cross section of 200 feet of dike.
146.25(L)	VI	Place rock on 400 feet of caving bank. Caving bank extends from the head of Dikes 146.3 (L) and 146.25 (L) downstream along the left bank of Osborne Chute. Repair 200 foot breach in dike. Repair of caving bank to be completed prior to repair of breach in dike.
146.1(L)	I	Place rock on 500 feet of caving bank.
142.3(L)	I	Place three foot high toe dike across low spots in highbank to restore to uniform elevation.
141.4(L)	I & V	Restore 600 foot dike. Slope from high bank for 300 feet down to Elevation 374 NGVD; then flat for 300 feet to end of dike. Place rock on 200-foot roundout.
140.5(L)	V	Restore cross section of 100 feet of dike.
137.6(L)	V	Restore cross section of middle 300 feet of dike.
137.0(L)	VIII	Restore cross section of 400 feet of dike head.
136.5(L)	I & VIII	Restore dike head, place revetment 200 feet downstream of dike.
136.0(L)	I	Place stone on 200-foot roundout.

132.9(R)	X	Remove pinnacle of stone located between Weir 132.8(R) and Weir 132.7 (R), at the approximate coordinates of N812772 and E598593, down to Elevation 334.0 NGVD. High point at Elevation 348.0 NGVD. Coordinates are Missouri East Nad 27. Recycle stone on site into any hole at or below Elevation 334.0 NGVD.
131.8(R)	I	Place rock on approximately 600 feet of caving bank.
130.2(R)	I	Place rock on approximately 750 feet of caving bank.
130.2(L)	N/A	Cut a trapezoidal notch 50 feet wide and 5 feet deep in the middle of the existing dike. Place removed rock on the downstream face of the dike.
129.9(L)	N/A	Cut a trapezoidal notch 100 feet wide and 5 feet deep in the middle of the existing dike. Place removed rock on the downstream face of the dike.
121.9(L)	VIII	Restore 300 feet of dike head.
121.7(L)	VIII	Restore 300 feet of dike head.
121.35-121.2(R)	V	Restore 800 foot trail dike to uniform elevation. Leave notches.
117.8(R)	I	"High-Water Work": Place revetment on approximately 120 feet of eroding bankline: on downstream side of closure structure which is located approximately 2000 feet off the main channel.
116.3(R)	I	Place rock on approximately 500 feet of caving bank.
115.6(L)	I & V	Restore 300 foot trail dike. Place rock on approximately 100 feet of caving bank.
114.7(L)	VIII	Restore 100 feet of dike head.
114.1(R)	VIII	Repair dike head, place revetment 100 feet upstream and 100 feet downstream of dike.

112.8(L)	V	Restore 500 foot dike. Slope from high bank for 300 feet down to Elevation 358 NGVD; then flat for 200 feet out to end of dike. Place stone such that the existing piling remains exposed on the downstream side of the stone.
112.5(L)	V	Restore 800 foot dike. Slope from high bank for 300 feet down to Elevation 355 NGVD; then flat for 500 feet out to end of dike. Place stone such that the existing piling remains exposed on the downstream side of the stone.
112.2(L)	V	Restore 500 foot dike section. Slope from high bank for 300 feet down to Elevation 357 NGVD; then flat for 200 feet out to existing rock. Tie into existing rock. Place stone such that the existing piling remains exposed on the downstream side of the stone.
110.2(R)	I	Place stone approximately 300 feet upstream and 300 feet downstream of dike on caving bank.
106.8(R)	V	Fill in 200 foot section of degraded dike to ensure a uniform elevation.
105.9(L)	V	Fill in degraded section of dike to ensure a uniform elevation.
105.6(R)	V	Fill in 100 foot section of degraded dike to ensure a uniform elevation.
99.4(L)	I	Place rock on 300 feet of caving bank.

ALL TOE DIKE CONSTRUCTION SHOULD INCORPORATE "V" TYPE NOTCH WITH THE INVERT ELEVATION SET AT FIVE FEET BELOW THE TOP OF THE TOE DIKE ELEVATION. THE CENTER OF THE NOTCH SHOULD BE LOCATED AT A POINT EQUAL TO ONE-HALF THE TOE DIKE LENGTH.

PART 2 - PRODUCTS

2.1 STONE. Stone shall conform to requirements of SECTION 02270.

PART 3 - EXECUTION

3.1 BEFORE WORK BEGINS. Before work is to begin at any locality, the Contractor shall inspect that locality with an authorized representative of the Contracting Officer. The Contractor shall ascertain the types and approximate quantities of materials and equipment necessary to perform the repairs indicated at that locality and shall have sufficient supplies and equipment available for use at the said locality in time to permit the work to begin and progress without delay.

3.2 REQUIREMENTS. The requirements of the work, such as the location and amounts of stone to be placed in bank protection in stone blankets and dikes will be as indicated in 022776-1.4.2.1.1 and 02276-1.4.2.1.3 as determined by the Contracting Officer's representative in the field.

3.3 REMOVAL OF DRIFT AND DEBRIS. The Contractor shall remove in accordance with the provisions of SECTION 01130, any drift, standing timber, and debris which has accumulated on the dikes or banks to the extent necessary to provide clear working space for making the required repairs.

3.4 GRADED STONE A REPAIR.

3.4.1 Stone Fill Dikes. The location and length of each dike and toe dike or section thereof to be constructed or repaired shall be in accordance with paragraphs 02276-1.4.2.1 and 02276-1.4.3. The repairs shall be constructed with Graded Stone A, conforming to the requirements of SECTION 02270, placed as hereinafter specified. Existing stone filldikes, or designated portions thereof, and toe dikes shall be built up to the required grade and section with new Graded Stone A. When so designated by an authorized representative of the Contracting Officer, the Contractor shall excavate a key trench to key the dike to the bank. This excavation for keying the dike to the bank may be performed by the equipment placing the Graded Stone A.

3.4.2 Grade and Section. The elevation or grade at the crest of each dike and toe dike shall be built to the elevation as directed by the Contracting Officer's representative in the field, unless otherwise specified in paragraph 02276-1.4.2.1. The crown width for each dike shall be 6 feet unless otherwise directed by the Contracting Officer's Representative and the side slopes shall be determined by the angle of repose, approximately 1V on 1.5H.

3.4.3 Order of Placement. Placement of stone in a dike shall be started at the end nearest the bank and proceed continuously toward the riverward end. A tolerance of 1 foot will be allowed in the specified elevation, and 1 foot under and 2 feet over in the specified crown width. When, in the opinion of the Contracting Officer, river stages are such as to restrict operations at the landward end, the Contracting Officer reserves the right to direct the Contractor by written notice to either lighten the barges or resort to other equipment, in which event an equitable adjustment will be made in accordance with Contract Clause entitled "Changes". For the underwater portion of the dike the stone shall be placed in approximately uniform layers not exceeding 4 feet in thickness, proceeding riverward from the bank. Each layer shall be carried the entire length of the dike and low areas and gaps shall be brought up to the desired elevation before proceeding with the next lift. That portion of the dike above the water may be placed in one lift. When scouring of the river bed occurs, the Contractor shall blanket the center 10-foot width of the dike base for the entire length of the dike

with stone to a depth of 4 feet before placing the remainder of the stone for the dike. The Contractor is advised that should the total estimated quantity of stone, as shown on the Bidding Schedule, be placed prior to completing the repairs at all locations as shown in paragraph 02276-1.4.2.1, the work under this contract may, at the discretion of the Contracting Officer, be considered complete, regardless of the total number of locations repaired.

3.4.4 Placement. The stone shall be placed in the dikes in such manner as to produce a reasonably well-graded mass of stone. The material may be placed by crane or dragline equipped with skip, grapple, rock bucket or clamshell or other approved equipment. The material above the water surface shall be rearranged or shaped to the prescribed section after placement. Additional material shall be added below the water surface as directed if soundings or sections indicate such to be necessary. The larger stones shall be well distributed throughout the mass and the finished dike shall be free from pockets of small stones and clusters of large stones.

3.4.5 Bank Protection Repairs at Dike Heads. Bank protection repairs may include adding Graded Stone A to the existing dike heads as necessary to restore the original grade and section adjacent to stone fill dikes. The location and extent of each type of work shall be as directed by the Contracting Officer pursuant to paragraphs 02276-1.4.2.1 and 02276-1.4.3. The repairs shall be constructed with Graded Stone A conforming to the requirements of SECTION 02270, and placed as specified in paragraph 02276-3.7.

3.5 STONE FOUNDATION. A stone foundation shall be constructed when required to stabilize the bank adjacent to a dike or within a reach of bank protection repairs. The stone foundation shall be constructed of Graded Stone A conforming to the requirements of SECTION 02270, and placed as specified in paragraph 02276-3.7, PLACING.

3.6 STONE BLANKET. Stone blanket shall consist of a course of Graded Stone A with a minimum thickness of 30 inches. The limits of the area to be paved at dike heads, on slopes behind roundouts, and on specified areas of bankline shall be as directed by the Contracting Officer. Where necessary to make connection with subaqueous work, the bank protection may be extended by placement of stone under water. The limits of underwater paving and the amounts required shall be as directed by the Contracting Officer.

3.7 PLACING. The revetment stone and stone blanket shall be placed on the slopes by skip, clamshell, or other approved method, and rearranged by hand as necessary to provide complete coverage of the bank. In underwater placement, the stone shall be uniformly distributed in the amount directed.

3.8 REVETMENT STONE REPAIR. Bank protection repairs may include adding Graded Stone A to the existing revetment as necessary to restore the original grade and section and placing new paving stone a minimum of 30 inches thick on areas eroded by wavewash or ice. The location and extent of each type of work shall be as directed by the Contracting Officer pursuant to paragraphs 02276-1.4.2.1 and 02276-1.4.3. The repairs shall be constructed with stone conforming to the requirements of SECTION 02270 and placed as specified in paragraph 02276-3.7.

3.9 CLEARING. Minor bank clearing shall be performed in accordance with paragraph 02276-1.4.4.

3.10 GRADING. It is anticipated that minor bank grading may be necessary at some repair areas. This grading shall be performed by mechanical methods.

3.11 MODIFICATION OF WORK. The location and number of dikes and the limits of the revetments listed in the specifications and the quantities shown on the Bidding Schedule are estimated requirements based on existing available surveys, including soundings, and anticipated conditions in the field at the time of construction. Additional surveys by the Government, and/or actual field conditions which develop as the work proceeds, may make it desirable to increase or decrease the number of dikes, shift their locations, modify their lengths and heights, add to or eliminate the bank grading, bank protection, and/or stone foundations required at the dikes, and/or increase or decrease the quantities of stone required, in which case the Government reserves the right to make any or all of the aforesaid changes, which changes may extend the work to embrace locations anywhere on the Mississippi River between Mississippi River Miles 195.0 to 98.6 without change in the contract unit prices.

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